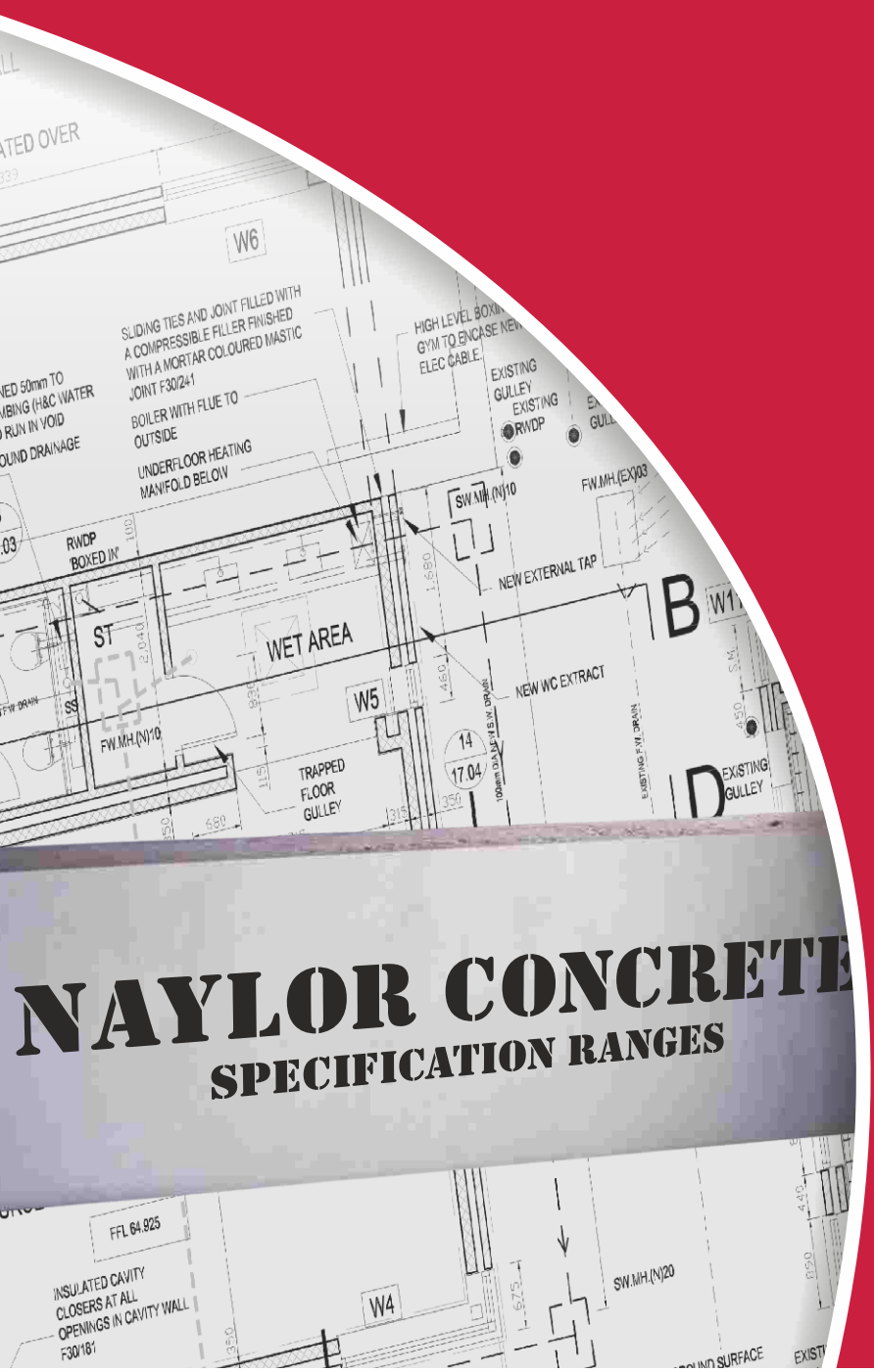
NAYLOR
CONCRETE
Made in the UK
Excellent Construction Products

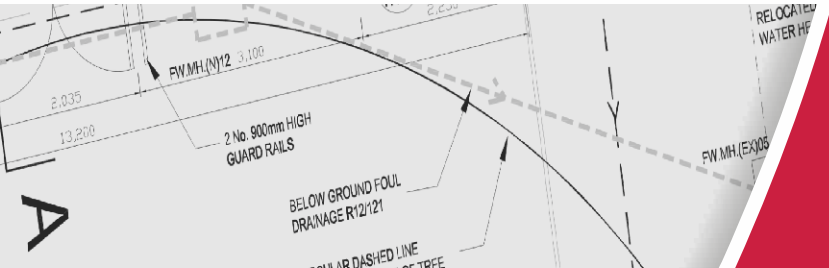
CI/SfB
31.9



Prestressed Lintels

Specifier's Handbook

email: lintels@naylor.co.uk web: www.naylor.co.uk



Index of **Products**

Useful **Contacts**

Technical Hotline **0800 5424192**

Sales Telephone **01226 320810**

Sales Fax **01226 320811**

www.naylor.co.uk/products/lintels
for brochure downloads & case studies

Technical@naylor.co.uk
For drawing emails and schedule requests

Technical@naylor.co.uk
For specific bespoke requirements and to request a visit from our technical staff

Lintels@naylor.co.uk
For sales, prices and delivery requirements

Lintels@naylor.co.uk
For orders or to request information.

Introduction

Naylor, a manufacturer of building materials since 1890, combines a wealth of experience in manufacturing techniques and in-depth ranges with a reputation for quality products, service and value for money.

The Naylor Lintel range has been continually improved and enhanced over the last 45 years in response to ever changing customer requirements and needs. The result: an unrivalled range of lintels to suit every application, backed up by a speedy and efficient specials service.

Naylor produce annually over 1 million metres of lintels. We specialise in major projects and since the 1960's have supplied many of Britain's most prestigious construction projects with our specialist ranges, including:

- Flats - including Canary Wharf tower
- Sports Stadia - including Wembley, Cardiff Millenium and the Olympic Stadium

Specifiers' Handbook

This handbook has been prepared to assist in the specification of Naylor Lintels.

Nationwide Stockists

Naylor Lintel Stockists are located throughout the UK to give back-up and local supply facilities to the end user.

As well as having stocks of over 100 standard sections of lintels, Naylor are also able to supply specials at short notice. Naylor Lintel Stockists are therefore offered an unrivalled range of prestressed concrete lintels for both industrial and commercial use.

Technical Services

A free design and technical service is available and advice is given for particular requirements and applications. Lintel schedules and calculations can be provided from working drawings.

Naylor Lintels can be specified from the NBSPlus Clause F30:740.

Drawings may be e-mailed directly to:
technical@naylor.co.uk

Features and Benefits

- **The widest range of any Prestressed Lintels available from one manufacturer in the UK**
- **A nationwide delivery service and nationwide prices, regardless of site destination**
- **Guaranteed quality and consistency**
- **Technical support and help to anywhere in the UK**
- **A simple pricing policy, you only pay per metre so there are no extra charges for a specific length**
- **All lintels are clearly marked, removing any risk on site that the wrong lintel might be built in**
- **Lintel Scheduling service available**
- **A Technical Hotline and Backup service**
- **All Lintels are a minimum 30 minutes Fire Resistance**

Standards and Design

The design of Naylor Prestressed Lintels complies with BS8110:part 1: 1997: Section 4.

Naylor Lintels conform to BSEN845 part 2: 2013.

Materials used in the manufacture of Naylor Prestressed Lintels comply with BSEN206:2013 and BS8500-1:2015. The prestressing wire complies with BS5896:2012.

Naylor Lintels have a low water absorption and as a result of the quality controlled hi spec dense concrete mix used in their manufacture, they can be used underground providing that the ends of the units are encased in a minimum of 45mm of mortar to the ends of the reinforcing strands.

All Naylor Lintels are wet cast and have a concrete strength of 50 N/mm^2 and are suitable to accept fixings providing that the tendons contained inside the unit remain undamaged.

All Hi-Spec fire rated Lintels produced by Naylor Lintels comply with BS8110-2: 1985, Section 4 table 4.3.

All L-Strip are manufactured from steel complying with BSEN10025 with a minimum yield stress of 275N/mm^2. Zinc coating is galvanised to BS2989z2. Stainless Steel L-Strip is also produced, conforming to grade 304:S15:BS1449: Part 2.

Naylor Concrete Products Ltd operate to Certified ISO 9001 quality assurance standards.

Lengths

Naylor lintels are available in lengths from 600mm to 3600mm as standard. Longer and intermediate lengths are available on request.

Load Bearing

Lintels are usually supplied with the following allowances for bearing at each end:

100mm for openings up to/including 1000mm

150mm for openings up to/including 3000mm

200mm for openings over 3000mm.

It is however, the responsibility of the building designer to ensure that these are sufficient to avoid over-stressing the masonry at the supports.

Typical Projects

Typical projects where Naylor lintels are specified and used include:

- Hospitals
- Schools
- Nursing homes
- Sheltered and student accommodation
- Flats
- Offices
- Industrial developments
- Sports stadia

Thermal Bridging

For further information on Thermal Bridging please contact the technical hotline.

New Regulations

Implementation of the amendments to Parts E and L of the building regulations came into force in 2002. Amongst the new measures it is required that the thermal bridging and fabric insulation be improved (Part L) and the required Resistance to Sound Reverberation, especially at low frequencies, (Part E) be increased.

Compliance with the new requirements can easily be achieved using our HI-SPEC range of Lintels and L-STRIP.

Less Stress with Prestressed

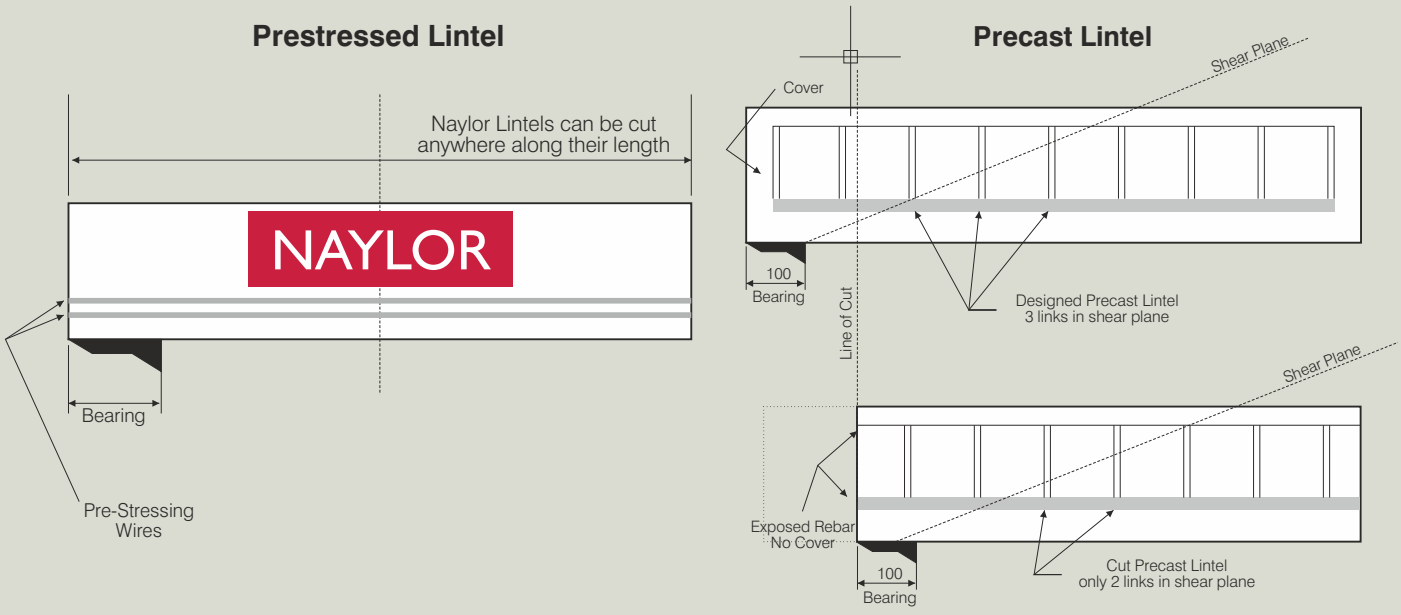
The allowable load carrying capacity (kN/m) of all concrete lintels is generally limited by the shear resistance of the cross section. All Naylor Lintels are manufactured as prestressed concrete sections giving several distinct advantages to the precast equivalent.

Quality Assurance in Manufacture

- All Naylor Products are manufactured to an approved Quality Assurance procedure audited to ISO 9001.
- Naylor Lintels have an inherently high resistance to shear due to the prestressed nature of their manufacture. Unlike precast products, Naylor Lintel sections do not require shear reinforcement and rely entirely on the prestressing wires for structural capacity. The need for less components in a Naylor Lintel greatly reduces the possibility of error in manufacture.
- As the prestressing wires of a Naylor Lintel are tensioned in a fabricated steel mould to specific tolerances it is not possible for the structure wires to be misplaced or miss-aligned. This can occur in precast sections that rely on the placement of individual bars fixed with steel or plastic spacers often in timber moulds that have a limited manufacturing life.
- Unlike the precast equivalent, the internal reinforcement of a Naylor Lintel is not reliant on plastic or concrete spacers to ensure accurate and consistent cover to the reinforcement throughout the whole length of section.
- Fair-faced products specified to section F31 of the National Building Specification (NBS) can prohibit the use of reinforcement spacers on visible faces. Meeting this required specification can realistically only be achieved using a Naylor prestressed lintel as the production method guarantees no spacers will be used.

Versatility on Site

- With continuous prestressing strands, Naylor Lintels can be cut on site to suit ANY length without affecting the load-carrying capacity of the section.
- A precast lintel should not be cut on site for several reasons;
  - On-site cutting will compromise the internal reinforcement and result in no cover being provided to the end of the reinforcing bar which is not a problem with a prestressed section.
  - Cutting may compromise the shear reinforcement of a cross section and dramatically reduce the section capacity of certain loading conditions.
- Precast lintel sections therefore need to be ordered either to exact known lengths, not always possible when providing a take-off from un-dimensioned drawings. Alternatively, construction on site needs to be adapted to suit the length of section provided; this is often impracticable. Naylor Lintels carry a wide variety of stock lengths that can be cut to length on site, allowing inevitable site changes to be made without the need to delay the works and re-order specific non-stock lengths of precast lintels.



Naylor Lintels Range

Hi-Spec Range

All units are pre-stressed to ensure optimum performance and come with 30 minutes fire rating as standard. With a range of 18 different sections sizes and with lengths available from 450mm to 4800mm on certain sections sizes. Due to additives and concrete strength, these units are suitable for use below ground.

Finish
An ex-steel mould finish and made from wet cast concrete. Possibility of small air holes on the surface, aggregate and concrete fines to bottom arrises. For use normally in plastered/rendered situations.

Order/Specification Code
Use the Hi-Spec reference on our load tables (e.g. S5)

Fair Faced Range

A range of lintels with the same performance and fire rating as the standard Hi-Spec range but with a smooth, consistent colour finish.

Finish
Type C Fair Faced finish.
All corners and arrises and faces on the lintel are perfect.

Order/Specification Code
Prefix the Hi-Spec reference with the word Faced (e.g. Faced S5)

Fire-Spec Range

A range of lintels with enhanced fire resistance, 140mm wide units can achieve 90 minutes, 190mm and 215mm wide units can achieve 120 minutes fire resistance. All units comply with BS8110-2 1985, Section 4 table 4.3 and as a result have a slightly less load bearing capacity when compared with the Hi-Spec Range

Finish
An ex-steel mould finish and made from wet cast concrete. May see small air holes on the surface and concrete fines to bottom arrises. For use normally in plastered situations. Not exposed situations.

Order/Specification Code
Prefix Hi-Spec reference with the word Fire (e.g. Fire S5)

Faced Fire Spec Range

A range of lintels with the same fire resistance properties as our Fire-Spec range but with the same finish as our Fair Faced units that are designed to be used in fair faced, paintgrade and blockwork situations.

Finish
Type C Fair Faced finish.
All corners and arrises and face on the lintel are perfect.

Order/Specification Code
Prefix Hi-Spec reference with the words Faced Fire (e.g. FacedFire S5)

Ultra-Fire Spec Range

A range of lintels with an enhanced fire resistance. Due to the special coating applied, all sections can achieve 240 minute load bearing capability when subject to fire conditions.

Finish
These lintels have a slightly different texture to concrete but are smooth . They can also be left natural but we would advise the use of a waterproof sealant to reduce surface dusting.

Order/Specification code
As per the product range (e.g. Ultra-Fire 100-6,Ultra-Fire 100-9, Ultra-Fire 140-6, Ultra-Fire 140-9, Ultra-Fire 215-9.)

Specials Service

A speedy and efficient service offering solutions to difficult site situations. Examples include; large and unusual shaped sections, lintels with inserts cast in and units with chamfers and notches. Individual performance calculations are available upon request.

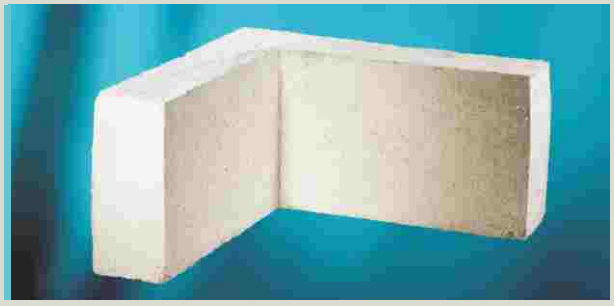
SPECIALS - To specify units please contact our technical/sales office.

Padstones

A full range of padstones are available with a strength that is a minimum of 50N/mm^2. We have a large range of 29 sections available as standard stock items with an additional 6 L-shaped padstones. Specials can be made also at a competitive price and the quality assures you that the concrete will take any loads placed upon it.

Padstone Section - (mm)		
100 x 140 x 100	300 x 140 x 215	330 x 215 x 290
215 x 140 x 100	300 x 190 x 215	440 x 100 x 215
330 x 140 x 100	300 x 215 x 215	440 x 140 x 215
440 x 140 x 100	330 x 100 x 215	440 x 190 x 215
140 x 140 x 140	330 x 140 x 215	440 x 215 x 215
215 x 100 x 215	330 x 190 x 215	440 x 100 x 290
215 x 140 x 215	330 x 215 x 215	440 x 140 x 290
215 x 190 x 215	330 x 100 x 290	440 x 190 x 290
215 x 215 x 215	330 x 140 x 290	440 x 215 x 290
300 x 100 x 215	330 x 190 x 290	

Padstone Range



L-Shaped Padstone Section - (mm)	
215/215 x 100 x 215	440/440 x 100 x 215
300/300 x 100 x 215	330/330 x 140 x 215
330/330 x 100 x 215	440/440 x 140 x 215



Technical Terms

Explanations of
Technical Data Sheet

MS
Serviceability Moment of Resistance.

MU
Ultimate Moment of Resistance.

MU/1.5
Where separate values of live and dead loads are not known a partial safety factor may be used when checking against unfactored loads.

Limiting MR
This is the lowest value of MS & MU/1.5. Used to generate load span tables.

VCO100
Ultimate Shear Capacity of the section for 100mm Bearing.

VCO100/1.5
Ultimate Shear Capacity divided by a partial safety factor for 100mm bearing.

VCO150
Ultimate Shear Capacity of the section for 150mm bearing.

VCO150/1.5
Ultimate Shear Capacity divided by a partial safety factor for 150mm bearing.

VCO200
Ultimate Shear Capacity of the section for 200mm bearing.

VCO200/1.5
Ultimate Shear Capacity divided by a partial safety factor for 200mm bearing.

Effective Depth
Depth to centroid of strand(s) from top of lintel, used to determine effective span.

Self Weight
Weight per linear metre of lintel.

(A)
Allowable load calculated from Limiting MR minus self weight.

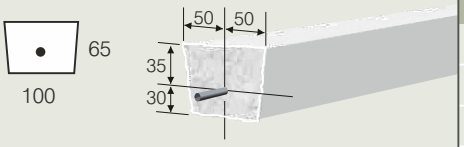
(B)
Allowable load calculated from shear resistance with 100mm or 150mm bearing.

(C)
Allowable load derived from tests

(D)
Lowest of (A), (B) or (C)



P100



Dimensions: 100mm wide x 65mm high

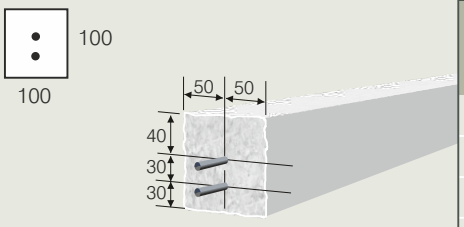
Section Properties			
Height	65mm	Vco	13.39 kN
Width	100mm	Vco 100/1.5	8.92 kN
Ms	0.886 kNm	Vco 150	14.51 kN
Mu	1.437 kNm	Vco 150/1.5	9.68 kN
Mu/1.5	0.958 kNm	Effective Depth	35mm
Limiting MR	0.886 kNm	Self Weight	15.6 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	735	12.97	24.12			12.97
1100	900	935	7.96				7.96
1200	1000	1035	6.47				6.47
1500	1200	1235	4.50		15.52		4.50
1800	1500	1535	2.86				2.86
2100	1800	1835	1.95				1.95
2400	2100	2135	1.40			1.21	1.40
2700	2400						
3000	2700						
3300	3000						
3600	3200						

S4

Also
FacedS4



Dimensions: 100mm wide x 100mm high

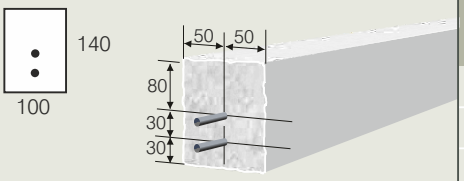
Section Properties			
Height	100mm	Vco	22.63 kN
Width	100mm	Vco 100/1.5	15.09 kN
Ms	2.262 kNm	Vco 150	24.40 kN
Mu	4.053 kNm	Vco 150/1.5	16.27 kN
Mu/1.5	2.702 kNm	Effective Depth	55mm
Limiting MR	2.262 kNm	Self Weight	24 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	755	31.51	39.73		18.00	18.00
1100	900	955	19.61	31.36		14.20	14.20
1200	1000	1055	16.02			12.80	12.20
1500	1200	1255	11.25		25.69		11.25
1800	1500	1555	7.25				7.25
2100	1800	1855	5.02				5.02
2400	2100	2155	3.66				3.66
2700	2400	2455	2.77				2.77
3000	2700	2744	2.15				2.15
3300	3000						
3600	3200						

R6

Also
FacedR6



Dimensions: 100mm wide x 140mm high

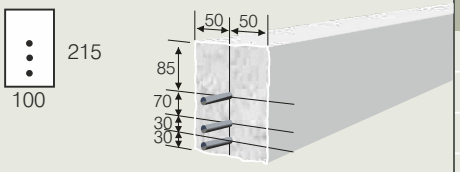
Section Properties			
Height	140mm	Vco	29.35 kN
Width	100mm	Vco 100/1.5	19.57 kN
Ms	5.499 kNm	Vco 150	31.13 kN
Mu	7.772 kNm	Vco 150/1.5	20.76 kN
Mu/1.5	5.181 kNm	Effective Depth	95mm
Limiting MR	5.181 kNm	Self Weight	33.6 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	795	65.25	48.90			48.90
1100	900	995	41.53	39.00			39.00
1200	1000	1095	34.23	35.41			34.23
1500	1200	1295	24.38		31.73		24.38
1800	1500	1595	15.96				15.96
2100	1800	1895	11.21				11.21
2400	2100	2195	8.27				8.27
2700	2400	2495	6.32				6.32
3000	2700	2795	4.97				4.97
3300	3000	3095	3.99				3.99
3600	3200	3295	3.48				3.48

R9

Also
FacedR9



Dimensions: 100mm wide x 215mm high

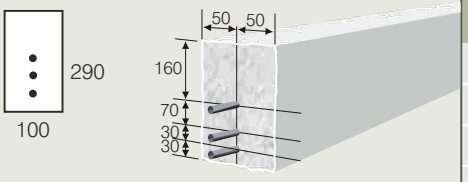
Section Properties			
Height	215mm	V_{CO}	47.22 kN
Width	100mm	$V_{CO\ 100/1.5}$	31.48 kN
M_S	12.396 kNm	$V_{CO\ 150}$	49.39 kN
M_U	23.867 kNm	$V_{CO\ 150/1.5}$	32.93 kN
$M_{U/1.5}$	15.912 kNm	Effective Depth	141.67mm
Limiting M_R	12.396 kNm	Self Weight	52 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	154.43	78.18			78.18
1100	900	1000	98.65	62.44			62.44
1200	1000	1100	81.44	56.72			56.72
1500	1200	1341.67	54.57		48.57		48.57
1800	1500	1641.67	36.27		39.60		36.27
2100	1800	1941.67	25.78				25.78
2400	2100	2241.67	19.21				19.21
2700	2400	2541.67	14.83				14.83
3000	2700	2841.67	11.76				11.76
3300	3000	3141.67	9.53				9.53
3600	3200	3341.67	8.36				8.36

R12

Also
FacedR12



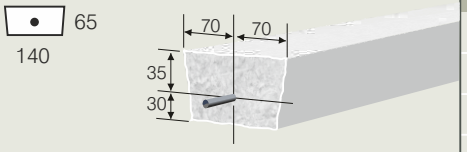
Dimensions: 100mm wide x 290mm high

Section Properties			
Height	290mm	V_{CO}	60.45 kN
Width	100mm	$V_{CO\ 100/1.5}$	40.30 kN
M_S	20.505 kNm	$V_{CO\ 150}$	62.33 kN
M_U	37.237 kNm	$V_{CO\ 150/1.5}$	41.55 kN
$M_{U/1.5}$	24.825 kNm	Effective Depth	205mm
Limiting M_R	20.505 kNm	Self Weight	69 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	255.61	100.05			100.05
1100	900	1000	163.34	79.90			79.90
1200	1000	1100	134.87	72.53			72.53
1500	1200	1350	89.31		60.85		60.85
1800	1500	1650	59.55		49.66		49.65
2100	1800	1950	42.44		41.91		41.91
2400	2100	2250	31.70		36.23		31.70
2700	2400	2550	24.53				24.53
3000	2700	2850	19.49				19.49
3300	3000	3150	15.83				15.83
3600	3200	3400	13.49				13.49

P140



Dimensions: 140mm wide x 65mm high

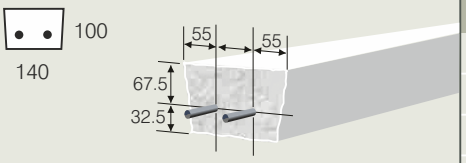
Section Properties			
Height	65mm	V_{CO}	17.27 kN
Width	140mm	$V_{CO\ 100/1.5}$	11.52 kN
M_S	1.028 kNm	$V_{CO\ 150}$	18.58 kN
M_U	1.739 kNm	$V_{CO\ 150/1.5}$	12.39 kN
$M_{U/1.5}$	1.160 kNm	Effective Depth	35mm
Limiting M_R	1.028 kNm	Self Weight	21.84 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	735	15.01	31.13			15.01
1100	900	935	9.19				9.19
1200	1000	1035	7.46				7.46
1500	1200	1235	5.18				5.18
1800	1500	1535	3.28				3.28
2100	1800	1835	2.23				2.23
2400	2100	2135	1.59				1.59

R3

Also
FacedR3



Dimensions: 140mm wide x 100mm high

Section Properties			
Height	100mm	V_{CO}	28.51 kN
Width	140mm	$V_{CO\ 100/1.5}$	19.00 kN
M_S	3.906 kNm	$V_{CO\ 150}$	30.52 kN
M_U	6.757 kNm	$V_{CO\ 150/1.5}$	20.34 kN
$M_{U/1.5}$	4.505 kNm	Effective Depth	67.5mm
Limiting M_R	3.906 kNm	Self Weight	34 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	767.5	52.71	49.17			49.17
1100	900	967.5	33.04	38.94			33.04
1200	1000	1067.5	27.08				27.08
1500	1200	1267.5	19.11				19.11
1800	1500	1567.5	12.38				12.38
2100	1800	1867.5	8.62				8.62
2400	2100	2167.5	6.31				6.31
2700	2400	2467.5	4.79				4.79
3000	2700	2767.5	3.74				3.74
3300	3000						
3600	3200						

R3

Also
FireR3
FacedFireR3
1.0 Hr

Dimensions: 140mm wide x 100mm high

Section Properties			
Height	100mm	V_{CO}	29.19 kN
Width	140mm	$V_{CO\ 100/1.5}$	19.46 kN
M_S	2.926 kNm	$V_{CO\ 150}$	31.30 kN
M_U	4.916 kNm	$V_{CO\ 150/1.5}$	20.87 kN
$M_{U/1.5}$	3.277 kNm	Effective Depth	55mm
Limiting M_R	2.926 kNm	Self Weight	34 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	755	40.72	51.21		33.00	33.00
1100	900	955	25.32				25.32
1200	1000	1055	20.69				20.69
1500	1200	1255	14.52				14.52
1800	1500	1555	9.34				9.34
2100	1800	1855	6.46				6.46
2400	2100	2155	4.70				4.70
2700	2400	2455	3.54				3.54
3000	2700	2755	2.74				2.74
3300	3000						
3600	3200						

R3

Also
FireR3
FacedFireR3
1.5 Hr

Dimensions: 140mm wide x 100mm high

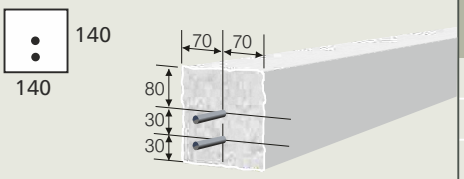
Section Properties			
Height	100mm	V_{CO}	24.66 kN
Width	140mm	$V_{CO\ 100/1.5}$	16.44 kN
M_S	1.455 kNm	$V_{CO\ 150}$	26.06 kN
M_U		$V_{CO\ 150/1.5}$	17.37 kN
$M_{U/1.5}$		Effective Depth	40mm
Limiting M_R	1.455 kNm	Self Weight	34 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	740	20.92	44.09			20.92
1100	900	940	12.83				12.83
1200	1000	1040	10.42				10.42
1500	1200	1240	7.23				7.23
1800	1500	1540	4.57				4.57
2100	1800	1840	3.10				3.10
2400	2100	2140	2.20				2.20
2700	2400	2440	1.61				1.61
3000	2700	2740	1.21				1.21
3300	3000						
3600	3200						

S5

Also
FacedS5



Dimensions: 140mm wide x 140mm high

Section Properties			
Height	140mm	V_{CO}	38.04 kN
Width	140mm	$V_{CO\ 100/1.5}$	25.36 kN
M_S	6.349 kNm	$V_{CO\ 150}$	40.14 kN
M_U	11.976 kNm	$V_{CO\ 150/1.5}$	26.76 kN
$M_{U/1.5}$	7.984 kNm	Effective Depth	95mm
Limiting M_R	6.349 kNm	Self Weight	47 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	795	79.89	63.32		58.05	58.05
1100	900	995	50.83	50.50		42.17	42.17
1200	1000	1095	41.89	45.84		36.52	36.52
1500	1200	1295	29.81			27.35	27.35
1800	1500	1595	19.49			19.20	19.20
2100	1800	1895	13.67				13.67
2400	2100	2195	10.07				10.07
2700	2400	2495	7.68				7.68
3000	2700	2795	6.03				6.03
3300	3000	3095	4.83				4.83
3600	3200	3295	4.20				4.20

S5

Also
FireS5
FacedFireS5
1.0 Hr

Dimensions: 140mm wide x 140mm high

Section Properties			
Height	140mm	V_{CO}	38.04 kN
Width	140mm	$V_{CO\ 100/1.5}$	25.36 kN
M_S	6.349 kNm	$V_{CO\ 150}$	40.14 kN
M_U	11.976 kNm	$V_{CO\ 150/1.5}$	26.76 kN
$M_{U/1.5}$	7.984 kNm	Effective Depth	95mm
Limiting M_R	6.349 kNm	Self Weight	47 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	795	79.89	63.32		53.04	53.04
1100	900	995	50.83	50.50		39.75	39.75
1200	1000	1095	41.89	45.84		35.12	35.12
1500	1200	1295	29.81			28.10	28.10
1800	1500	1595	19.49				19.49
2100	1800	1895	13.67				13.67
2400	2100	2195	10.07				10.07
2700	2400	2495	7.68				7.68
3000	2700	2795	6.03				6.03
3300	3000	3095	4.83				4.83
3600	3200	3295	4.20				4.20

S5

Also
FireS5
FacedFireS5
1.5 Hr

Dimensions: 140mm wide x 140mm high

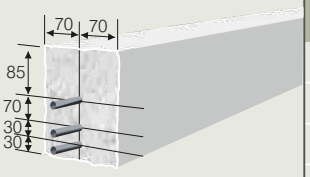
Section Properties			
Height	140mm	V_{CO}	32.80 kN
Width	140mm	$V_{CO\ 100/1.5}$	21.86 kN
M_S	3.444 kNm	$V_{CO\ 150}$	34.18 kN
M_U	5.989 kNm	$V_{CO\ 150/1.5}$	22.79 kN
$M_{U/1.5}$	3.993 kNm	Effective Depth	80mm
Limiting M_R	3.444 kNm	Self Weight	47 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	780	44.81	55.58			44.81
1100	900	980	28.21				28.21
1200	1000	1080	23.15				23.15
1500	1200	1280	16.34				16.34
1800	1500	1580	10.56				10.56
2100	1800	1880	7.32				7.32
2400	2100	2180	5.32				5.32
2700	2400	2480	4.00				4.00
3000	2700	2780	3.09				3.09
3300	3000	3080	2.43				2.43
3600	3200	3280	2.09				2.09

R8

Also
FacedR8



Dimensions: 140mm wide x 215mm high

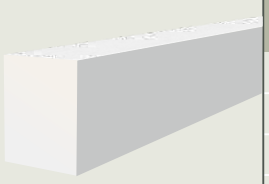
Section Properties			
Height	215mm	V_{CO}	60.79 kN
Width	140mm	$V_{CO\ 100/1.5}$	40.52 kN
M_S	14.259 kNm	$V_{CO\ 150}$	40.14 kN
M_U	25.71 kNm	$V_{CO\ 150/1.5}$	63.35 kN
$M_{U/1.5}$	17.14 kNm	Effective Depth	141.67mm
Limiting M_R	14.259 kNm	Self Weight	72 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	SR_{100} (B)	SR_{150} (B)	Test (C)	Limiting (D)
900	700	800	177.51	100.57			100.57
1100	900	1000	113.35	80.31			80.31
1200	1000	1100	93.55	72.95			72.95
1500	1200	1341.67	62.64		62.22		62.22
1800	1500	1641.67	41.60				41.60
2100	1800	1941.67	29.53				29.53
2400	2100	2241.67	21.97				21.97
2700	2400	2541.67	16.93				16.93
3000	2700	2841.67	13.40				13.40
3300	3000	3141.67	10.83				10.83
3600	3200	3341.67	9.49				9.49

R8

Also
FireR8
FacedFireR8
1.0 Hr



Dimensions: 140mm wide x 215mm high

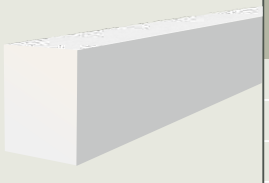
Section Properties			
Height	215mm	V_{CO}	60.79 kN
Width	140mm	$V_{CO\ 100/1.5}$	40.52 kN
M_S	14.259 kNm	$V_{CO\ 150}$	40.14 kN
M_U	25.71 kNm	$V_{CO\ 150/1.5}$	63.35 kN
$M_{U/1.5}$	17.14 kNm	Effective Depth	141.67mm
Limiting M_R	14.259 kNm	Self Weight	72 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	SR_{100} (B)	SR_{150} (B)	Test (C)	Limiting (D)
900	700	800	177.51	100.57			100.57
1100	900	1000	113.35	80.31			80.31
1200	1000	1100	93.55	72.95		70.84	70.84
1500	1200	1341.67	62.64			40.26	40.26
1800	1500	1641.67	41.60			39.60	39.60
2100	1800	1941.67	29.53			26.60	26.60
2400	2100	2241.67	21.97				21.97
2700	2400	2541.67	16.93				16.93
3000	2700	2841.67	13.40				13.40
3300	3000	3141.67	10.83				10.83
3600	3200	3341.67	9.49				9.49

R8

Also
FireR8
FacedFireR8
1.5 Hr



Dimensions: 140mm wide x 215mm high

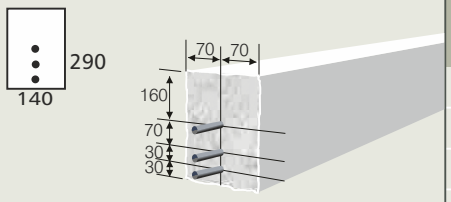
Section Properties			
Height	215mm	V_{CO}	61.35 kN
Width	140mm	$V_{CO\ 100/1.5}$	40.90 kN
M_S	12.257 kNm	$V_{CO\ 150}$	63.95 kN
M_U	20.619 kNm	$V_{CO\ 150/1.5}$	42.63 kN
$M_{U/1.5}$	13.746 kNm	Effective Depth	126.67mm
Limiting M_R	12.257 kNm	Self Weight	73 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	SR_{100} (B)	SR_{150} (B)	Test (C)	Limiting (D)
900	700	800	152.49	101.52			101.52
1100	900	1000	97.33	81.07			81.07
1200	1000	1100	80.31	73.64			73.64
1500	1200	1326.67	54.98		63.73		54.98
1800	1500	1626.67	36.33				36.33
2100	1800	1926.67	25.69				25.69
2400	2100	2226.67	19.05				19.05
2700	2400	2526.67	14.63				14.63
3000	2700	2826.67	11.55				11.56
3300	3000	3126.67	9.30				9.30
3600	3200	3326.67	8.13				8.13

R11

Also
FacedR11



Dimensions: 140mm wide x 290mm high

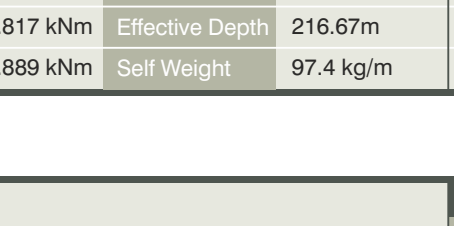
Section Properties			
Height	290mm	Vco	77.39 kN
Width	140mm	Vco 100/1.5	51.59 kN
Ms	24.889 kNm	Vco 150	79.54 kN
Mu	47.725 kNm	Vco 150/1.5	53.03 kN
Mu/1.5	31.817 kNm	Effective Depth	216.67m
Limiting MR	24.889 kNm	Self Weight	97.4 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	310.13	128.00			128.00
1100	900	1000	198.13	102.20			102.20
1200	1000	1100	163.58	98.82			98.82
1500	1200	1350	108.27		77.58		77.58
1800	1500	1650	72.16		63.30		63.30
2100	1800	1950	51.38				51.38
2400	2100	2250	38.35				38.35
2700	2400	2550	29.64				29.64
3000	2700	2850	23.53				23.53
3300	3000	3150	19.09				19.09
3600	3200	3400	16.25				16.25

R11

Also
FireR11
FacedFireR11
1.0 Hr



Dimensions: 140mm wide x 290mm high

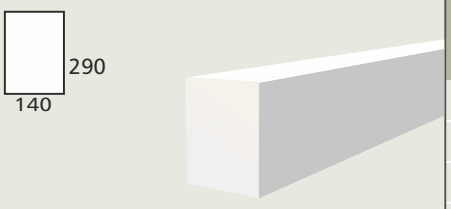
Section Properties			
Height	290mm	Vco	77.39 kN
Width	140mm	Vco 100/1.5	51.59 kN
Ms	24.889 kNm	Vco 150	79.54 kN
Mu	47.725 kNm	Vco 150/1.5	53.03 kN
Mu/1.5	31.817 kNm	Effective Depth	216.67m
Limiting MR	24.889 kNm	Self Weight	97.4 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	310.13	128.00			128.00
1100	900	1000	198.13	102.20			102.20
1200	1000	1100	163.58	98.82			98.82
1500	1200	1350	108.27		74.10		74.10
1800	1500	1650	72.16		58.60		58.60
2100	1800	1950	51.38		47.96		47.96
2400	2100	2250	38.35				38.35
2700	2400	2550	29.64				29.64
3000	2700	2850	23.53				23.53
3300	3000	3150	19.09				19.09
3600	3200	3400	16.25				16.25

R11

Also
FireR11
FacedFireR11
1.5 Hr



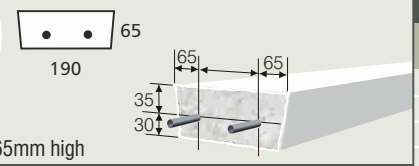
Dimensions: 140mm wide x 290mm high

Section Properties			
Height	290mm	Vco	78.18 kN
Width	140mm	Vco 100/1.5	52.12 kN
Ms	22.941 kNm	Vco 150	80.39 kN
Mu	43.377 kNm	Vco 150/1.5	53.59 kN
Mu/1.5	28.918 kNm	Effective Depth	200mm
Limiting MR	22.941 kNm	Self Weight	97.4 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	285.78	129.32			129.32
1100	900	1000	182.55	103.26			103.26
1200	1000	1100	150.70	93.78			93.78
1500	1200	1350	99.72		78.41		78.41
1800	1500	1650	66.43		63.98		63.98
2100	1800	1950	47.29				47.29
2400	2100	2250	35.26				35.26
2700	2400	2550	27.25				27.25
3000	2700	2850	21.62				21.62
3300	3000	3150	17.52				17.52
3600	3200	3400	14.90				14.90

P190



Dimensions: 190mm wide x 65mm high

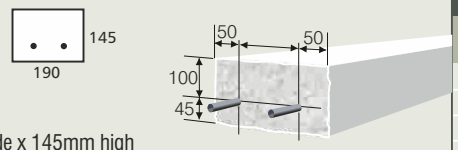
Section Properties			
Height	65mm	Vco	25.75 kN
Width	190mm	Vco 100/1.5	17.17 kN
Ms	1.732 kNm	Vco 150	27.95 kN
Mu	2.780 kNm	Vco 150/1.5	18.63 kN
Mu/1.5	1.853 kNm	Effective Depth	35mm
Limiting MR	1.732 kNm	Self Weight	29.64 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	735	25.36	46.42		21.40	21.40
1100	900	935	15.56				15.56
1200	1000	1035	12.65				12.65
1500	1200	1235	8.80				8.80
1800	1500	1535	5.59				5.59
2100	1800	1835	3.83				3.83
2400	2100	2135	2.75				2.75
2700	2400						
3000	2700						
3300	3000						
3600	3200						

R2

Also **FacedR2**



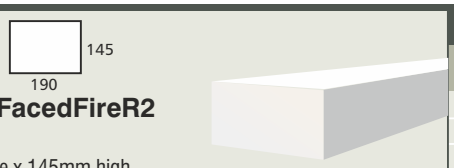
Dimensions: 190mm wide x 145mm high

Section Properties			
Height	145mm	Vco	49.51 kN
Width	190mm	Vco 100/1.5	33.01 kN
Ms	7.681 kNm	Vco 150	51.90 kN
Mu	14.502 kNm	Vco 150/1.5	34.60 kN
Mu/1.5	9.968 kNm	Effective Depth	100mm
Limiting MR	7.681 kNm	Self Weight	66 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	95.35	81.86			81.86
1100	900	1000	60.78				60.78
1200	1000	1100	50.12				50.12
1500	1200	1300	35.69				35.69
1800	1500	1600	23.34				23.34
2100	1800	1900	16.36				16.36
2400	2100	2200	12.03				12.03
2700	2400	2500	9.17				9.17
3000	2700	2800	7.17				7.17
3300	3000	3100	5.73				5.73
3600	3200	3300	4.98				4.98

R2



Also **FireR2** *and* **FacedFireR2**
1.0 Hr

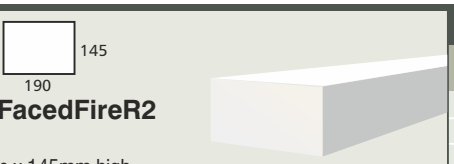
Dimensions: 190mm wide x 145mm high

Section Properties			
Height	145mm	Vco	49.51 kN
Width	190mm	Vco 100/1.5	33.01 kN
Ms	7.681 kNm	Vco 150	51.90 kN
Mu	14.502 kNm	Vco 150/1.5	34.60 kN
Mu/1.5	9.968 kNm	Effective Depth	100mm
Limiting MR	7.681 kNm	Self Weight	66 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	95.35	81.86			81.86
1100	900	1000	60.78				60.78
1200	1000	1100	50.12				50.12
1500	1200	1300	35.69				35.69
1800	1500	1600	23.34				23.34
2100	1800	1900	16.36				16.36
2400	2100	2200	12.03				12.03
2700	2400	2500	9.17				9.17
3000	2700	2800	7.17				7.17
3300	3000	3100	5.73				5.73
3600	3200	3300	4.98				4.98

R2



Also **FireR2** *and* **FacedFireR2**
1.5 Hr

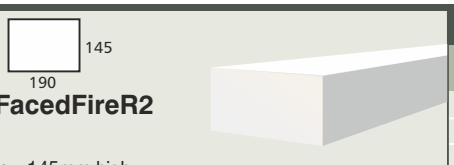
Dimensions: 190mm wide x 145mm high

Section Properties			
Height	145mm	Vco	49.96 kN
Width	190mm	Vco 100/1.5	33.30 kN
Ms	6.257 kNm	Vco 150	52.41 kN
Mu	11.853 kNm	Vco 150/1.5	34.93 kN
Mu/1.5	7.902 kNm	Effective Depth	85mm
Limiting MR	6.257 kNm	Self Weight	66 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	785	80.56				80.56
1100	900	985	50.93				50.93
1200	1000	1085	41.85				41.85
1500	1200	1285	29.65				29.65
1800	1500	1585	19.26				19.26
2100	1800	1885	13.42				13.42
2400	2100	2185	9.82				9.82
2700	2400	2485	7.44				7.44
3000	2700	2785	5.79				5.79
3300	3000	3085	4.59				4.59
3600	3200	3285	3.97				3.97

R2



Also **FireR2** *and* **FacedFireR2**
2.0 Hr

Dimensions: 190mm wide x 145mm high

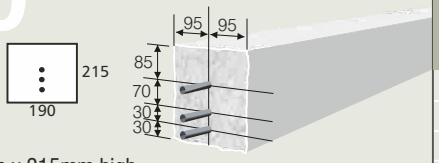
Section Properties			
Height	145mm	Vco	50.07 kN
Width	190mm	Vco 100/1.5	33.38 kN
Ms	4.667 kNm	Vco 150	52.53 kN
Mu	-	Vco 150/1.5	35.02 kN
Mu/1.5	-	Effective Depth	70mm
Limiting MR	4.667 kNm	Self Weight	66 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	770	62.31				62.31
1100	900	970	39.02				39.02
1200	1000	1070	31.94				31.94
1500	1200	1270	22.48				22.48
1800	1500	1570	14.48				14.48
2100	1800	1870	10.01				10.01
2400	2100	2170	7.26				7.26
2700	2400	2470	5.45				5.45
3000	2700	2770	4.20				4.20
3300	3000	3070	3.30				3.30
3600	3200	3270	2.83				2.83

R190

Also
FacedR190



Dimensions: 190mm wide x 215mm high

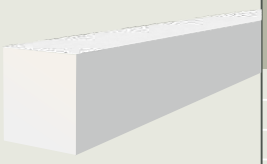
Section Properties			
Height	215mm	V_{CO}	76.48 kN
Width	190mm	$V_{CO\ 100/1.5}$	50.99 kN
M_S	16.121 kNm	$V_{CO\ 150}$	79.37 kN
M_U	26.787 kNm	$V_{CO\ 150/1.5}$	52.92 kN
$M_{U/1.5}$	17.858 kNm	Effective Depth	141.67mm
Limiting M_R	16.121 kNm	Self Weight	98 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	200.53	126.49			126.49
1100	900	1000	127.98	101.00			101.00
1200	1000	1100	105.60	91.72			91.72
1500	1200	1341.67	70.66				70.66
1800	1500	1641.67	46.87				46.87
2100	1800	1941.67	33.22				33.22
2400	2100	2241.67	24.68				24.68
2700	2400	2541.67	18.98				18.98
3000	2700	2841.67	14.99				14.99
3300	3000	3141.67	12.08				12.08
3600	3200	3341.67	10.56				10.56

R190

Also
FireR190
FacedFireR190
1.0 Hr



Dimensions: 190mm wide x 215mm high

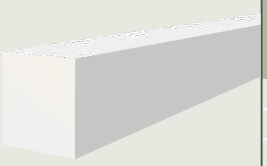
Section Properties			
Height	215mm	V_{CO}	76.48 kN
Width	190mm	$V_{CO\ 100/1.5}$	50.99 kN
M_S	16.121 kNm	$V_{CO\ 150}$	79.37 kN
M_U	26.787 kNm	$V_{CO\ 150/1.5}$	52.92 kN
$M_{U/1.5}$	17.858 kNm	Effective Depth	141.67mm
Limiting M_R	16.121 kNm	Self Weight	98 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	200.53	126.49		114.50	114.50
1100	900	1000	127.98	101.00		91.80	91.80
1200	1000	1100	105.60	91.72		83.38	83.38
1500	1200	1341.67	70.66			67.66	67.66
1800	1500	1641.67	46.87				46.87
2100	1800	1941.67	33.22				33.22
2400	2100	2241.67	24.68				24.68
2700	2400	2541.67	18.98				18.98
3000	2700	2841.67	14.99				14.99
3300	3000	3141.67	12.08				12.08
3600	3200	3341.67	10.56				10.56

R190

Also
FireR190
FacedFireR190
1.5 Hr



Dimensions: 190mm wide x 215mm high

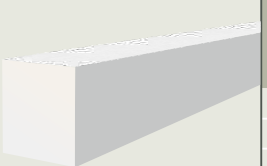
Section Properties			
Height	215mm	V_{CO}	76.48 kN
Width	190mm	$V_{CO\ 100/1.5}$	50.99 kN
M_S	16.121 kNm	$V_{CO\ 150}$	79.37 kN
M_U	26.787 kNm	$V_{CO\ 150/1.5}$	52.92 kN
$M_{U/1.5}$	17.858 kNm	Effective Depth	141.67mm
Limiting M_R	16.121 kNm	Self Weight	98 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	200.53	126.49		113.40	113.40
1100	900	1000	127.98	101.00		90.50	90.50
1200	1000	1100	105.60	91.72		82.00	82.00
1500	1200	1341.67	70.66			66.20	66.20
1800	1500	1641.67	46.87				46.87
2100	1800	1941.67	33.22				33.22
2400	2100	2241.67	24.68				24.68
2700	2400	2541.67	18.98				18.98
3000	2700	2841.67	14.99				14.99
3300	3000	3141.67	12.08				12.08
3600	3200	3341.67	10.56				10.56

R190

Also
FireR190
FacedFireR190
2.0 Hr



Dimensions: 190mm wide x 215mm high

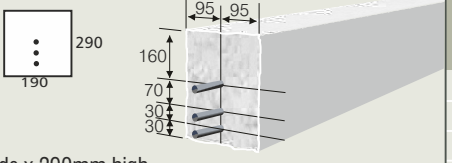
Section Properties			
Height	215mm	V_{CO}	76.80 kN
Width	190mm	$V_{CO\ 100/1.5}$	51.20 kN
M_S	14.692 kNm	$V_{CO\ 150}$	79.73 kN
M_U	27.761 kNm	$V_{CO\ 150/1.5}$	53.15 kN
$M_{U/1.5}$	18.508 kNm	Effective Depth	131.67mm
Limiting M_R	14.692 kNm	Self Weight	98 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	182.67	126.49		121.36	121.36
1100	900	1000	116.55	101.00		95.16	95.16
1200	1000	1100	96.15	91.72		85.70	85.70
1500	1200	1331.67	65.29				65.29
1800	1500	1631.67	43.16				43.16
2100	1800	1931.67	30.51				30.51
2400	2100	2231.67	22.61				22.61
2700	2400	2531.67	17.35				17.35
3000	2700	2831.67	13.67				13.67
3300	3000	3131.67	11.00				11.00
3600	3200	3331.67	9.60				9.60

R13

Also
FacedR13



Dimensions: 190mm wide x 290mm high

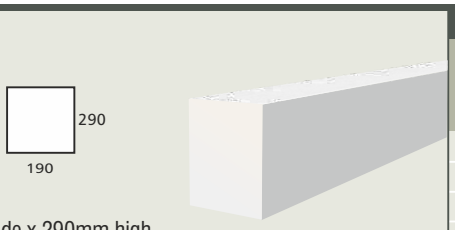
Section Properties			
Height	290mm	V_{CO}	98.12 kN
Width	190mm	$V_{CO\ 100/1.5}$	65.41 kN
M_S	27.598 kNm	$V_{CO\ 150}$	100.56 kN
M_U	48.993 kNm	$V_{CO\ 150/1.5}$	67.04 kN
$M_{U/1.5}$	32.66 kNm	Effective Depth	212mm
Limiting M_R	27.598 kNm	Self Weight	132 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	343.65	162.20			162.20
1100	900	1000	219.46	129.49			129.49
1200	1000	1100	181.14	117.60			117.60
1500	1200	1350	119.82		97.99		97.99
1800	1500	1650	79.77				79.77
2100	1800	1950	56.74				56.74
2400	2100	2250	42.28				42.28
2700	2400	2550	32.63				32.63
3000	2700	2850	25.85				25.85
3300	3000	3150	20.92				20.92
3600	3200	3400	17.77				17.77

R13

Also
FireR13
FacedFireR13
1.0 Hr



Dimensions: 190mm wide x 290mm high

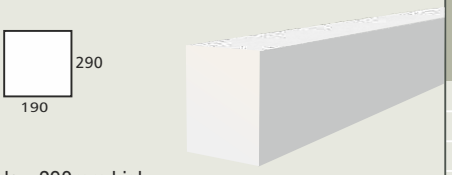
Section Properties			
Height	290mm	V_{CO}	98.12 kN
Width	190mm	$V_{CO\ 100/1.5}$	65.41 kN
M_S	27.598 kNm	$V_{CO\ 150}$	100.56 kN
M_U	48.993 kNm	$V_{CO\ 150/1.5}$	67.04 kN
$M_{U/1.5}$	32.66 kNm	Effective Depth	212mm
Limiting M_R	27.598 kNm	Self Weight	132 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	343.65	162.20			162.20
1100	900	1000	219.46	129.49			129.49
1200	1000	1100	181.14	117.60			117.60
1500	1200	1350	119.82		97.99		97.99
1800	1500	1650	79.77				79.77
2100	1800	1950	56.74				56.74
2400	2100	2250	42.28				42.28
2700	2400	2550	32.63				32.63
3000	2700	2850	25.85				25.85
3300	3000	3150	20.92				20.92
3600	3200	3400	17.77				17.77

R13

Also
FireR13
FacedFireR13
1.5 Hr



Dimensions: 190mm wide x 290mm high

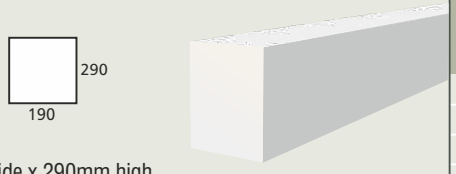
Section Properties			
Height	290mm	V_{CO}	98.12 kN
Width	190mm	$V_{CO\ 100/1.5}$	65.41 kN
M_S	27.598 kNm	$V_{CO\ 150}$	100.56 kN
M_U	48.993 kNm	$V_{CO\ 150/1.5}$	67.04 kN
$M_{U/1.5}$	32.66 kNm	Effective Depth	212mm
Limiting M_R	27.598 kNm	Self Weight	132 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	343.65	162.20			162.20
1100	900	1000	219.46	129.49		122.75	122.75
1200	1000	1100	181.14	117.60		107.79	107.79
1500	1200	1350	119.82		97.99	80.67	80.67
1800	1500	1650	79.77			59.95	59.95
2100	1800	1950	56.74			46.48	46.48
2400	2100	2250	42.28			37.37	37.37
2700	2400	2550	32.63			31.10	31.10
3000	2700	2850	25.85				25.85
3300	3000	3150	20.92				20.92
3600	3200	3400	17.77				17.77

R13

Also
FireR13
FacedFireR13
2.0 Hr



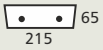
Dimensions: 190mm wide x 290mm high

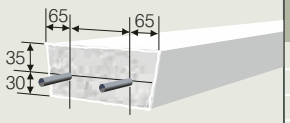
Section Properties			
Height	290mm	V_{CO}	98.46 kN
Width	190mm	$V_{CO\ 100/1.5}$	65.64 kN
M_S	25.186 kNm	$V_{CO\ 150}$	100.92 kN
M_U	46.263 kNm	$V_{CO\ 150/1.5}$	67.28 kN
$M_{U/1.5}$	30.841 kNm	Effective Depth	201.67mm
Limiting M_R	25.186 kNm	Self Weight	132.2 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	313.50	162.77			162.77
1100	900	1000	200.16	129.95			129.95
1200	1000	1100	165.19	118.02			118.02
1500	1200	1350	109.23		98.35		98.35
1800	1500	1650	72.68				72.68
2100	1800	1950	51.66				51.66
2400	2100	2250	38.47				38.47
2700	2400	2550	29.66				29.66
3000	2700	2850	23.48				23.48
3300	3000	3150	18.98				18.98
3600	3200	3350	16.63				16.63

P215





Dimensions: 100mm wide x 65mm high

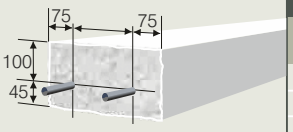
Section Properties			
Height	70mm	Vco	28.28 kN
Width	215mm	Vco 100/1.5	18.85 kN
Ms	1.831 kNm	Vco 150	30.61 kN
Mu	3.002 kNm	Vco 150/1.5	20.41 kN
Mu/1.5	2.001 kNm	Effective Depth	35mm
Limiting MR	1.831 kNm	Self Weight	33.54 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	735	26.78				26.78
1100	900	935	16.42				16.42
1200	1000	1035	13.34				13.34
1500	1200	1235	9.27				9.27
1800	1500	1535	5.89				5.89
2100	1800	1835	4.02				4.02
2400	2100	2135	2.88				2.88

R7

Also **FacedR7**



Dimensions: 215mm wide x 145mm high

Section Properties			
Height	145mm	Vco	54.54 kN
Width	215mm	Vco 100/1.5	36.36 kN
Ms	8.077 kNm	Vco 150	57.03 kN
Mu	14.859 kNm	Vco 150/1.5	38.02 kN
Mu/1.5	9.906 kNm	Effective Depth	100mm
Limiting MR	8.077 kNm	Self Weight	75 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	100.21	90.15			90.15
1100	900	1000	63.86				63.86
1200	1000	1100	52.65				52.65
1500	1200	1300	37.48				37.48
1800	1500	1600	24.49				24.49
2100	1800	1900	17.15				17.15
2400	2100	2200	12.60				12.60
2700	2400	2500	9.59				9.59
3000	2700	2800	7.49				7.49
3300	3000	3100	5.97				5.97
3600	3200	3300	5.18				5.18

R7

Also **FireR7** *and* **FacedFireR7**
1.0 Hr

Dimensions: 215mm wide x 145mm high

Section Properties			
Height	145mm	Vco	54.54 kN
Width	215mm	Vco 100/1.5	36.36 kN
Ms	8.077 kNm	Vco 150	57.03 kN
Mu	14.859 kNm	Vco 150/1.5	38.02 kN
Mu/1.5	9.906 kNm	Effective Depth	100mm
Limiting MR	8.077 kNm	Self Weight	75 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	100.21	90.15			90.15
1100	900	1000	63.86				63.86
1200	1000	1100	52.65				52.65
1500	1200	1300	37.48				37.48
1800	1500	1600	24.49				24.49
2100	1800	1900	17.15				17.15
2400	2100	2200	12.60				12.60
2700	2400	2500	9.59				9.59
3000	2700	2800	7.49				7.49
3300	3000	3100	5.97				5.97
3600	3200	3300	5.18				5.18

R7

Also **FireR7** *and* **FacedFireR7**
1.5 Hr

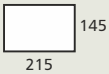
Dimensions: 215mm wide x 145mm high

Section Properties			
Height	145mm	Vco	54.94 kN
Width	215mm	Vco 100/1.5	36.62 kN
Ms	6.611 kNm	Vco 150	57.49 kN
Mu	12.223 kNm	Vco 150/1.5	38.33 kN
Mu/1.5	8.148 kNm	Effective Depth	85mm
Limiting MR	6.611 kNm	Self Weight	75 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	785	85.07				85.07
1100	900	985	53.76				53.76
1200	1000	1085	44.17				44.17
1500	1200	1285	31.28				31.28
1800	1500	1585	20.30				20.30
2100	1800	1885	14.13				14.13
2400	2100	2185	10.32				10.32
2700	2400	2485	7.81				7.81
3000	2700	2785	6.07				6.07
3300	3000	3085	4.80				4.80
3600	3200	3285	4.15				4.15

R7



Also **FireR7** *and* **FacedFireR7**
2.0 Hr

Dimensions: 215mm wide x 145mm high

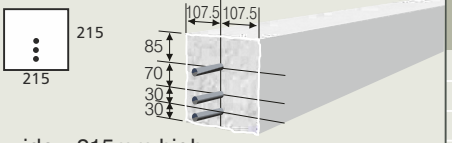
Section Properties			
Height	145mm	Vco	55.02 kN
Width	215mm	Vco 100/1.5	36.68 kN
Ms	4.724 kNm	Vco 150	57.59 kN
Mu	-	Vco 150/1.5	38.39 kN
Mu/1.5	-	Effective Depth	70mm
Limiting MR	4.724 kNm	Self Weight	75 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	770	62.99			24.88	24.88
1100	900	970	39.41			18.64	18.64
1200	1000	1070	32.26			16.62	16.62
1500	1200	1270	22.68			13.13	13.13
1800	1500	1570	14.58			10.54	10.54
2100	1800	1870	10.06			8.59	8.59
2400	2100	2170	7.27			7.22	7.22
2700	2400	2470	5.44				5.44
3000	2700	2770	4.17				4.17
3300	3000	3070	3.26				3.26
3600	3200	3270	2.78				2.78

S8

Also
FacedS8



Dimensions: 215mm wide x 215mm high

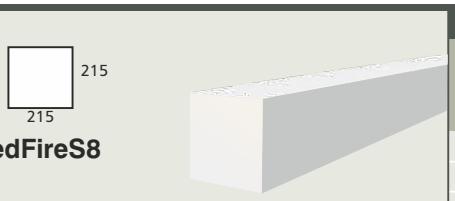
Section Properties			
Height	215mm	V_{CO}	84.03 kN
Width	215mm	$V_{CO\ 100/1.5}$	56.02 kN
M_S	16.96 kNm	$V_{CO\ 150}$	87.06 kN
M_U	26.257 kNm	$V_{CO\ 150/1.5}$	58.04 kN
$M_{U/1.5}$	17.504 kNm	Effective Depth	141.67mm
Limiting M_R	16.96 kNm	Self Weight	111 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	210.89	138.94		136.58	136.58
1100	900	1000	134.57	110.93		101.50	101.50
1200	1000	1100	93.11	92.25		89.00	88.97
1500	1200	1341.67	74.26		85.41	66.40	66.40
1800	1500	1641.67	49.23				49.23
2100	1800	1941.67	34.87				34.87
2400	2100	2241.67	25.89				25.89
2700	2400	2541.67	19.89				19.89
3000	2700	2841.67	15.69				15.69
3300	3000	3141.67	12.63				12.63
3600	3200	3341.67	11.04			9.11	9.12

S8

Also
FireS8 *and* **FacedFireS8**
1.0 Hr



Dimensions: 215mm wide x 215mm high

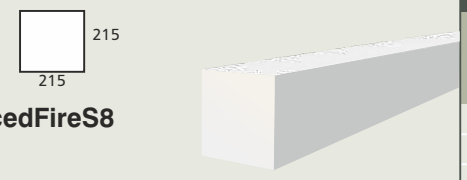
Section Properties			
Height	215mm	V_{CO}	84.03 kN
Width	215mm	$V_{CO\ 100/1.5}$	56.02 kN
M_S	16.96 kNm	$V_{CO\ 150}$	87.06 kN
M_U	26.257 kNm	$V_{CO\ 150/1.5}$	58.04 kN
$M_{U/1.5}$	17.504 kNm	Effective Depth	141.67mm
Limiting M_R	16.96 kNm	Self Weight	111 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	210.89	138.94		116.38	116.38
1100	900	1000	134.57	110.93		90.33	90.33
1200	1000	1100	93.11	92.25		80.85	80.85
1500	1200	1341.67	74.26			63.66	63.66
1800	1500	1641.67	49.23				49.23
2100	1800	1941.67	34.87				34.87
2400	2100	2241.67	25.89				25.89
2700	2400	2541.67	19.89				19.89
3000	2700	2841.67	15.69				15.69
3300	3000	3141.67	12.63				12.63
3600	3200	3341.67	11.04				11.04

S8

Also
FireS8 *and* **FacedFireS8**
1.5 Hr



Dimensions: 215mm wide x 215mm high

Section Properties			
Height	215mm	V_{CO}	84.03 kN
Width	215mm	$V_{CO\ 100/1.5}$	56.02 kN
M_S	16.96 kNm	$V_{CO\ 150}$	87.06 kN
M_U	26.257 kNm	$V_{CO\ 150/1.5}$	58.04 kN
$M_{U/1.5}$	17.504 kNm	Effective Depth	141.67mm
Limiting M_R	16.96 kNm	Self Weight	111 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	210.89	138.94		119.54	119.54
1100	900	1000	134.57	110.93		94.34	94.34
1200	1000	1100	93.11	92.25		85.10	85.10
1500	1200	1341.67	74.26		85.41	68.02	68.02
1800	1500	1641.67	49.23				49.23
2100	1800	1941.67	34.87				34.87
2400	2100	2241.67	25.89				25.89
2700	2400	2541.67	19.89				19.89
3000	2700	2841.67	15.69				15.69
3300	3000	3141.67	12.63				12.63
3600	3200	3341.67	11.04				11.04

S8

Also
FireS8 *and* **FacedFireS8**
2.0 Hr

Dimensions: 215mm wide x 215mm high

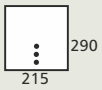
Section Properties			
Height	215mm	V_{CO}	84.33 kN
Width	215mm	$V_{CO\ 100/1.5}$	56.22 kN
M_S	15.492 kNm	$V_{CO\ 150}$	87.38 kN
M_U	28.625 kNm	$V_{CO\ 150/1.5}$	58.26 kN
$M_{U/1.5}$	19.083 kNm	Effective Depth	131.67mm
Limiting M_R	15.492 kNm	Self Weight	111 kg/m

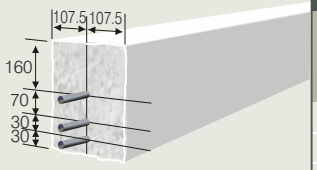
Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	192.54	139.44		90.55	90.55
1100	900	1000	122.82	111.33		71.98	71.98
1200	1000	1100	101.31	101.10		65.20	65.20
1500	1200	1331.67	68.77		86.38	53.47	53.47
1800	1500	1631.67	45.44			43.20	43.20
2100	1800	1931.67	32.10				32.10
2400	2100	2231.67	23.77				23.77
2700	2400	2531.67	18.22				18.22
3000	2700	2831.67	14.34				14.34
3300	3000	3131.67	11.52				11.52
3600	3200	3331.67	10.05				10.05

R14

Also **FacedR14**





Dimensions: 215mm wide x 290mm high

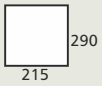
Section Properties			
Height	290mm	V_{CO}	108.06 kN
Width	215mm	$V_{CO\ 100/1.5}$	72.04 kN
M_S	29.08 kNm	$V_{CO\ 150}$	110.60 kN
M_U	49.773 kNm	$V_{CO\ 150/1.5}$	73.73 kN
$M_{U/1.5}$	33.182 kNm	Effective Depth	212mm
Limiting M_R	29.08 kNm	Self Weight	150 kg/m

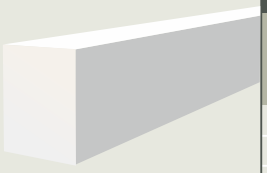
Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	362.00	178.60			178.60
1100	900	1000	231.14	142.58			142.58
1200	1000	1100	190.76	129.48			129.48
1500	1200	1350	126.15		107.73		107.73
1800	1500	1650	83.95				83.95
2100	1800	1950	59.68				59.68
2400	2100	2250	44.45				44.45
2700	2400	2550	34.28				34.28
3000	2700	2850	27.14				27.14
3300	3000	3150	21.94				21.94
3600	3200	3400	18.62				18.62

R14

Also
FireR14
FacedFireR14
1.0 Hr





Dimensions: 215mm wide x 290mm high

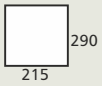
Section Properties			
Height	290mm	V_{CO}	108.06 kN
Width	215mm	$V_{CO\ 100/1.5}$	72.04 kN
M_S	29.08 kNm	$V_{CO\ 150}$	110.60 kN
M_U	49.773 kNm	$V_{CO\ 150/1.5}$	73.73 kN
$M_{U/1.5}$	33.182 kNm	Effective Depth	212mm
Limiting M_R	29.08 kNm	Self Weight	150 kg/m

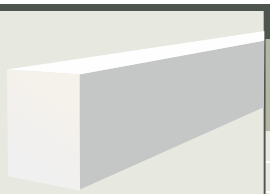
Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	362.00	178.60		164.30	164.30
1100	900	1000	231.14	142.58		130.47	130.47
1200	1000	1100	190.76	129.48		118.10	118.10
1500	1200	1350	126.15			94.85	94.85
1800	1500	1650	83.95			75.89	75.89
2100	1800	1950	59.68				59.68
2400	2100	2250	44.45				44.45
2700	2400	2550	34.28				34.28
3000	2700	2850	27.14				27.14
3300	3000	3150	21.94				21.94
3600	3200	3400	18.62				18.62

R14

Also
FireR14
FacedFireR14
1.5 Hr





Dimensions: 215mm wide x 290mm high

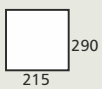
Section Properties			
Height	290mm	V_{CO}	108.06 kN
Width	215mm	$V_{CO\ 100/1.5}$	72.04 kN
M_S	29.08 kNm	$V_{CO\ 150}$	110.60 kN
M_U	49.773 kNm	$V_{CO\ 150/1.5}$	73.73 kN
$M_{U/1.5}$	33.182 kNm	Effective Depth	212mm
Limiting M_R	29.08 kNm	Self Weight	150 kg/m

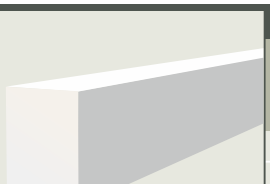
Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	362.00	178.60		177.82	177.82
1100	900	1000	231.14	142.58		141.74	141.74
1200	1000	1100	190.76	129.48		128.72	128.72
1500	1200	1350	126.15		107.73	105.00	105.00
1800	1500	1650	83.95		87.87		83.95
2100	1800	1950	59.68				59.68
2400	2100	2250	44.45				44.45
2700	2400	2550	34.28				34.28
3000	2700	2850	27.14				27.14
3300	3000	3150	21.94				21.94
3600	3200	3400	18.62				18.62

R14

Also
FireR14
FacedFireR14
2.0 Hr





Dimensions: 215mm wide x 290mm high

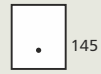
Section Properties			
Height	290mm	V_{CO}	108.35 kN
Width	215mm	$V_{CO\ 100/1.5}$	72.23 kN
M_S	27.613 kNm	$V_{CO\ 150}$	110.92 kN
M_U	47.062 kNm	$V_{CO\ 150/1.5}$	73.94 kN
$M_{U/1.5}$	31.375 kNm	Effective Depth	201.67mm
Limiting M_R	27.613 kNm	Self Weight	150 kg/m

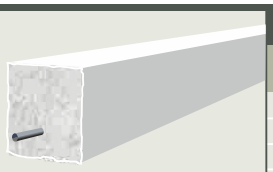
Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m				
			M_R (A)	S_{R100} (B)	S_{R150} (B)	Test (C)	Limiting (D)
900	700	800	343.66	179.07			179.07
1100	900	1000	219.40	142.96		131.50	131.50
1200	1000	1100	181.06	129.83		117.13	117.13
1500	1200	1350	119.71			90.51	90.51
1800	1500	1650	79.64			69.23	69.23
2100	1800	1950	56.59			54.53	54.53
2400	2100	2250	42.13				42.13
2700	2400	2550	32.47				32.47
3000	2700	2850	25.70				25.70
3300	3000	3150	20.76				20.76
3600	3200	3400	17.61				17.61

100-6

UltraFire 4Hr.





Dimensions: 100mm wide x 145mm high

Section Properties			
Height	145mm	Vco	17.93 kN
Width	100mm	Vco 100/1.5	11.95 kN
Ms	2.736 kNm	Vco 150	18.99 kN
Mu	4.628 kNm	Vco 150/1.5	12.66 kN
Mu/1.5	3.086 kNm	Effective Depth	85mm
Limiting MR	2.736 kNm	Self Weight	35 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	785	35.17	30.09			30.09
1100	900	985	22.21				22.21
1200	1000	1085	18.24				18.24
1500	1200	1285	12.90				12.90
1800	1500	1585	8.36				8.36
2100	1800	1885	5.81				5.81
2400	2100	2185	4.23				4.23
2700	2400	2485	3.19				3.19

140-6

UltraFire 4Hr.

Dimensions: 140mm wide x 140mm high

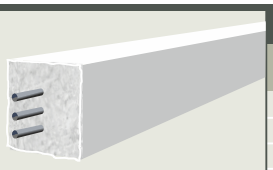
Section Properties			
Height	140mm	Vco	27.40 kN
Width	140mm	Vco 100/1.5	18.27 kN
Ms	1.306 kNm	Vco 150	31.13 kN
Mu	3.735 kNm	Vco 150/1.5	20.75 kN
Mu/1.5	2.490 kNm	Effective Depth	45mm
Limiting MR	1.306 kNm	Self Weight	47 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	745	18.35				18.35
1100	900	945	11.23				11.23
1200	1000	1045	9.10				9.10
1500	1200	1245	6.27				6.27
1800	1500	15.45	3.91				3.91
2100	1800	18.45	2.60				2.60
2400	2100	21.45	1.80				1.80
2700	2400						
3000	2700						
3300	3000						
3600	3200						

140-9

UltraFire 4Hr.



Dimensions: 140mm wide x 215mm high

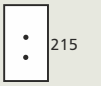
Section Properties			
Height	215mm	Vco	45.26 kN
Width	140mm	Vco 100/1.5	30.17 kN
Ms	8.818 kNm	Vco 150	49.54 kN
Mu	14.073 kNm	Vco 150/1.5	31.65 kN
Mu/1.5	9.382 kNm	Effective Depth	111.67mm
Limiting MR	8.818 kNm	Self Weight	72 kg/m

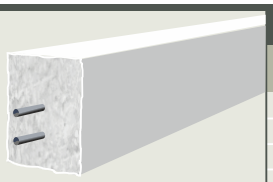
Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	109.50	74.70			74.70
1100	900	1000	69.82	59.61			59.61
1200	1000	1100	57.57	54.13			54.13
1500	1200	1312	40.25				40.25
1800	1500	1612	26.42				26.42
2100	1800	1912	18.57				18.57
2400	2100	2212	13.69				13.69
2700	2400	2512	10.45				10.45
3000	2700	2812	8.19				8.19
3300	3000	3112	6.56				6.56
3600	3200	3312	5.71				5.71

100-9

UltraFire 4Hr.





Dimensions: 100mm wide x 215mm high

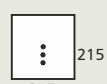
Section Properties			
Height	215mm	Vco	30.46 kN
Width	100mm	Vco 100/1.5	20.31 kN
Ms	6.368 kNm	Vco 150	32.02 kN
Mu	11.585 kNm	Vco 150/1.5	21.34 kN
Mu/1.5	7.723 kNm	Effective Depth	115.5mm
Limiting MR	6.386 kNm	Self Weight	51 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	79.32	50.27			50.27
1100	900	1000	50.57	40.11			40.11
1200	1000	1100	41.71	36.42			36.42
1500	1200	1315	29.03				29.03
1800	1500	1615	19.32				19.32
2100	1800	1915	13.42				13.42
2400	2100	2215	9.90				9.90
2700	2400	2515	7.57				7.57
3000	2700	2815	5.94				5.94
3300	3000	3115	4.76				4.76
3600	3200	3315	4.17				4.71

215-9

UltraFire 4Hr.



Dimensions: 215mm wide x 215mm high

Section Properties			
Height	215mm	Vco	71.09 kN
Width	215mm	Vco 100/1.5	47.39 kN
Ms	11.225 kNm	Vco 150	74.09 kN
Mu	18.248 kNm	Vco 150/1.5	49.39 kN
Mu/1.5	12.166 kNm	Effective Depth	110mm
Limiting MR	11.225 kNm	Self Weight	111 kg/m

Load Table

Overall Length	Clear Span	Eff. Span	Allowable Load - kN/m MR (A)	SR100 (B)	SR150 (B)	Test (C)	Limiting (D)
900	700	800	139.20	117.36			117.36
1100	900	1000	88.69	93.67			88.69
1200	1000	1100	73.10				73.10
1500	1200	1310	51.21				51.21
1800	1500	1610	33.53				33.53
2100	1800	1910	23.50				23.50
2400	2100	2210	17.27				17.27
2700	2400	2510	13.14				13.14
3000	2700	2810	10.26				10.26
3300	3000	3110	8.17				8.17
3600	3200	3310	7.08				7.08

Economy Range

A cost effective fully reversible unit for when you have a standard housing situation or small load situation.

Finish

An ex-steel mould finish and made from wet cast concrete. May see small air holes on the surface, aggregate and concrete fines to bottom arrises. For use normally in plastered situations. For exposed situations see Fair Faced Range.

Order/Specification Code

Please see the Economy Load Tables (e.g. ER1, ER2 etc).

The Economy Range is manufactured in lengths up to 3m and offer 30 minutes fire resistance only.

Economy Range		ER1	ER2	ER3	ER4	ER6	ER7	ER8
Load Table								
Suitable for Foundation Use		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Available Range Finish		Standard	Standard	Standard	Standard	Standard	Standard	Standard
		UNFACTORED LOADS IN kN/m						
Length	Clear Span	100x65	100x140	140x65	215x70	140x140	100x215	140x215
900mm	700mm	8.31	30.04	10.08	17.73	36.87	59.38	75.93
1100mm	900mm	5.07	18.80	6.13	10.81	23.06	47.40	56.61
1200mm	1000mm	4.10	15.39	4.96	8.76	18.87	40.95	46.66
1500mm	1200mm	2.83	10.83	3.42	6.04	13.25	28.83	32.81
1800mm	1500mm	1.78	6.97	2.13	3.79	8.51	18.90	21.46
2100mm	1800mm	1.19	4.81	1.42	2.55	5.86	13.27	15.03
2400mm	2100mm	0.84	3.49	0.99	1.79	4.23	9.78	11.04
2700mm	2400mm	n/a	2.61	0.71	1.30	3.15	7.46	8.39
3000mm	2700mm	n/a	2.01	0.52	0.96	2.41	5.85	6.55
Lintel Weight kg/m		16	34	22	34	47	51.6	72
Ms (kNm)		0.596	2.612	0.691	1.212	2.768	6.098	7.167
VCO 100/1.5 (kN)		7.22	18.28	6.93	9.39	20.41	26.09	33.31
VCO 150/1.5 (kN)		7.74	19.47	7.49	10.02	21.32	27.23	34.61

Economy Range		ER1	ER2	ER3	ER4	ER6	ER7	ER8
Orientation		On Edge	On Edge	On Edge	On Edge	On Edge	On Edge	On Edge
		UNFACTORED LOADS IN kN/m						
Length	Clear Span	65x100	140x100	65x140	70x215	140x140	215x100	215x140
900mm	700mm	12.27	22.53	19.85	40.89	36.87	40.97	53.49
1100mm	900mm	7.59	13.91	12.43	31.73	23.06	25.34	38.96
1200mm	1000mm	6.18	11.33	10.18	26.16	18.87	20.65	31.88
1500mm	1200mm	4.31	7.89	7.16	18.42	13.25	14.42	22.42
1800mm	1500mm	2.75	5.02	4.61	12.07	8.51	9.19	14.42
2100mm	1800mm	1.89	3.42	3.18	8.47	5.86	6.30	9.95
2400mm	2100mm	1.35	2.45	2.31	6.24	4.23	4.53	7.20
2700mm	2400mm	n/a	1.80	1.73	4.76	3.15	3.37	5.39
3000mm	2700mm	n/a	1.36	1.33	3.73	2.41	2.57	4.14
Lintel Weight kg/m		16	34	22	34	47	51.6	72
Ms (kNm)		0.917	1.867	1.488	3.222	2.768	2.837	4.667
VCO 100/1.5 (kN)		7.40	17.69	7.40	10.31	20.41	24.26	32.03
VCO 150/1.5 (kN)		7.90	19.04	7.82	10.81	21.32	25.88	33.67

L-Strip

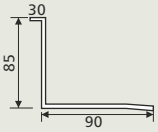
A range of Steel L-Shaped angle lintels suitable for brick and stone to carry the external leaf.

Available in galvanised (Pregalv G600) and stainless steel grade 304. Other specially designed steel lintels available upon request.

L-Strip Steel Range

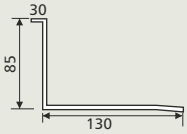
85

LG85
LS85



Self weight 5kg/m

LG85
LS85
Stone



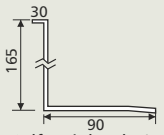
Self weight 6kg/m

Load Table

O/all Length	Clear Span	Allowable Load - kN/m
900	700	22.85
1100	900	14.63
1200	1000	12.09
1500	1200	8.02
1800	1500	5.37
2100	1800	3.42
2400	2100	
2700	2400	
3000	2700	
3300	3000	
3600	3200	

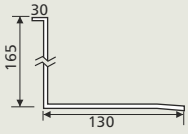
165

LG165
LS165



Self weight 7kg/m

LG165
LS165
Stone



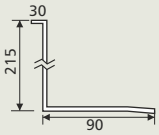
Self weight 8kg/m

Load Table

O/all Length	Clear Span	Allowable Load - kN/m
900	700	62.10
1100	900	39.75
1200	1000	32.85
1500	1200	21.15
1800	1500	13.25
2100	1800	8.51
2400	2100	5.46
2700	2400	3.54
3000	2700	
3300	3000	
3600	3200	

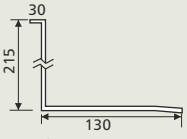
215

LG215
LS215



Self weight 9kg/m

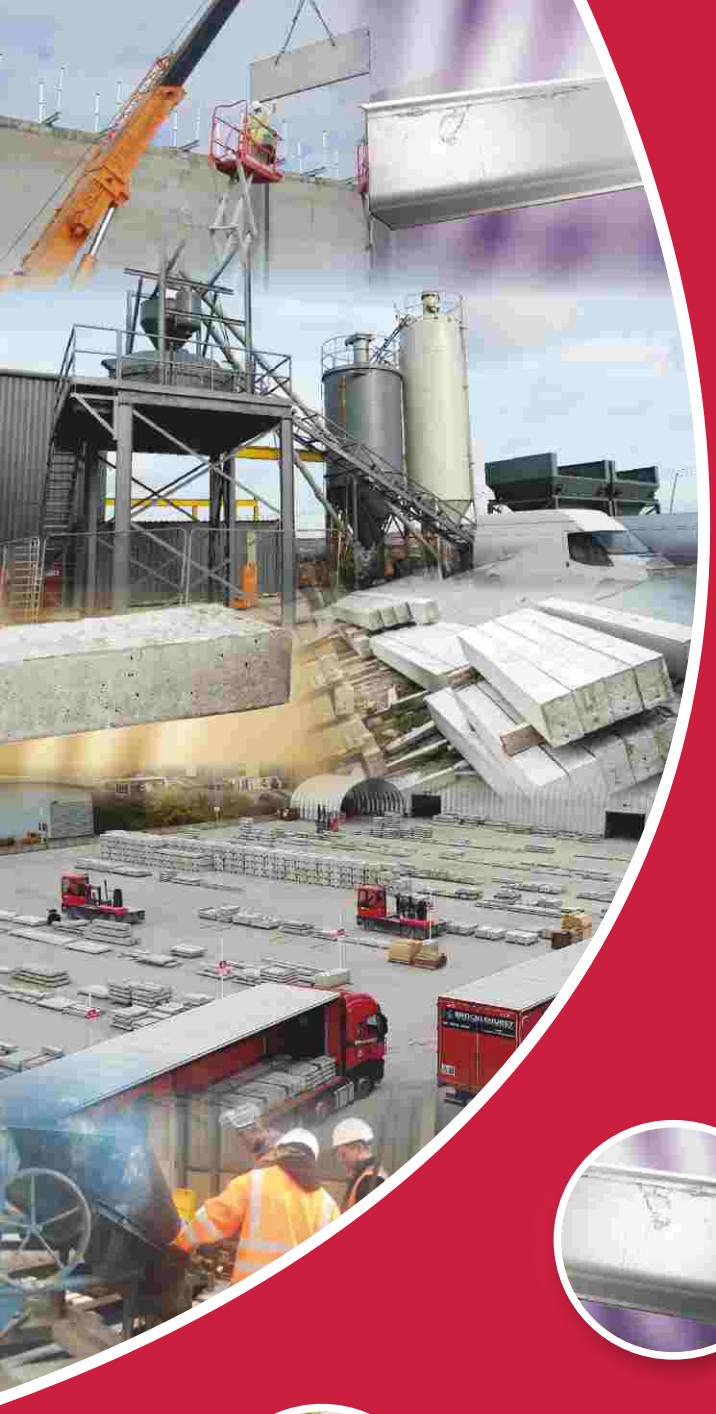
LG215
LS215
Stone



Self weight 10kg/m

Load Table

O/all Length	Clear Span	Allowable Load - kN/m
900	700	32.75
1100	900	20.96
1200	1000	17.32
1500	1200	11.50
1800	1500	7.69
2100	1800	5.51
2400	2100	4.14
2700	2400	3.22
3000	2700	2.58
3300	3000	2.11
3600	3200	1.86



Hi-Spec and Fair Faced Lintels

Fire-Spec, Faced Fire and Ultra-Fire Lintels

Padstones

L-Strip Lintels

Whites Concrete

Naylor Industries plc - more than 100 years of production and supply to the Construction Industry

- Vitrified clay pipe systems for trench and trenchless installation
- Thermachem - Chemical Drainage and Industrial Ceramics
- Band-Seal couplings for the repair of and connections into existing pipelines
- Plastic Land Drainage, Twinwall Ducting Systems and Access Boxes
- Yorkshire Flowerpots, a range of frostproof plant pots

NAYLOR CONCRETE
Made in the UK
Excellent Construction Products

A Member of the Naylor Group of Companies

NAYLOR CONCRETE PRODUCTS LIMITED

NAYLOR LINTELS DIVISION
WHALEY ROAD, BARUGH GREEN
BARNSLEY
SOUTH YORKSHIRE S75 1HT

TELEPHONE: 01226 320810
FACSIMILE: 01226 320811
EMAIL: LINTELS@NAYLOR.CO.UK
WEB: WWW.NAYLORLINTELS.CO.UK

Ref: LINT SPECIFIERS 0219